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Asp	Ser	Lys	Phe	Ser	Ile	Leu	Ser	Ser	Gly	Trp	Leu	Arg	Ile	Lys	Ser								
				530					535					540									
Met	Glu	Pro	Ser	Asp	Ser	Gly	Leu	Tyr	Gln	Cys	Ile	Ala	Gln	Val	Arg								
545					550					555					560								
Asp	Glu	Met	Asp	Arg	Met	Val	Tyr	Arg	Val	Leu	Val	Gln	Ser	Pro	Ser								
				565					570					575									
Thr	Gln																						

[illegible]

Glu	Ser	Val	Thr	Leu	Pro	Cys	Asn	Ala	Leu	Ala	Ile	Pro	Glu	Ala	His
		595					600					605			
Leu	Ser	Trp	Ile	Leu	Pro	Asn	Arg	Arg	Ile	Ile	Asn	Asp	Leu	Ala	Asn
	610					615					620				
Thr	Ser	His	Val	Tyr	Met	Leu	Pro	Asn	Gly	Thr	Leu	Ser	Ile	Pro	Lys
625					630					635					640
Val	Gln	Val	Ser	Asp	Ser	Gly	Tyr	Tyr	Arg	Cys	Val	Ala	Val	Asn	Gln
				645					650					655	
Gln	Gly	Ala	Asp	His	Phe	Thr	Val	Gly	Ile	Thr	Val	Thr	Lys	Lys	Gly
			660					665					670		
Ser	Gly	Leu	Pro	Ser	Lys	Arg	Gly	Arg	Arg	Pro	Gly	Ala	Lys	Ala	Leu
		675					680					685			
Ser	Arg	Val	Arg	Glu	Asp	Ile	Val	Glu	Asp	Glu	Gly	Gly	Ser	Gly	Met
	690					695					700				
Gly	Asp	Glu	Glu	Asn	Thr	Ser	Arg	Arg	Leu	Leu	His	Pro	Lys	Asp	Gln
705					710					715					720
Glu	Val	Phe	Leu	Lys	Thr	Lys	Asp	Asp	Ala	Ile	Asn	Gly	Asp	Lys	Lys
				725					730					735	
Ala	Lys	Lys	Gly	Arg	Arg	Lys	Leu	Lys	Leu	Trp	Lys	His	Ser	Glu	Lys
			740					745					750		
Glu	Pro	Glu	Thr	Asn	Val	Ala	Glu	Gly	Arg	Arg	Val	Phe	Glu	Ser	Arg
		755					760					765			
Arg	Arg	Ile	Asn	Met	Ala	Asn	Lys	Gln	Ile	Asn	Pro	Glu	Arg	Trp	Ala
	770					775					780				
Asp	Ile	Leu	Ala	Lys	Val	Arg	Gly	Lys	Asn	Leu	Pro	Lys	Gly	Thr	Glu
785					790					795					800
Val	Pro	Pro	Leu	Ile	Lys	Thr	Thr	Ser	Pro	Pro	Ser	Leu	Ser	Leu	Glu
				805					810					815	
Val	Thr	Pro	Pro	Phe	Pro	Ala	Val	Ser	Pro	Pro	Ser	Ala	Ser	Pro	Val
			820					825					830		
Gln	Thr	Val	Thr	Ser	Ala	Glu	Glu	Ser	Ser	Ala	Asp	Val	Pro	Leu	Leu
		835					840					845			
Gly	Glu	Glu	Glu	His	Val	Leu	Gly	Thr	Ile	Ser	Ser	Ala	Ser	Met	Gly
	850					855					860				
Leu	Glu	His	Asn	His	Asn	Gly	Val	Ile	Leu	Val	Glu	Pro	Glu	Val	Thr
865					870					875					880
Ser	Thr	Pro	Leu	Glu	Glu	Val	Val	Asp	Asp	Leu	Ser	Glu	Lys	Thr	Glu
				885					890					895	
Glu	Ile	Thr	Ser	Thr	Glu	Gly	Asp	Leu	Lys	Gly	Thr	Ala	Ala	Pro	Thr
			900					905					910		
Leu	Ile	Ser	Glu	Pro	Tyr	Glu	Pro	Ser	Pro	Thr	Leu	His	Thr	Leu	Asp
		915					920					925			
Thr	Val	Tyr	Glu	Lys	Pro	Thr	His	Glu	Glu	Thr	Ala	Thr	Glu	Gly	Trp
	930					935					940				
Ser	Ala	Ala	Asp												

THESE

1010				1015				1020							
Glu	Pro	Gly	Val	Pro	Gly	Gln	Ser	His	Leu	Gln	Gly	Leu	Thr	Asp	Asn
1025					1030					1035					1040
Ile	His	Leu	Val	Lys	Ser	Ser	Leu	Ser	Thr	Gln	Asp	Thr	Leu	Leu	Ile
				1045					1050					1055	
Lys	Lys	Gly	Met	Lys	Glu	Met	Ser	Gln	Thr	Leu	Gln	Gly	Gly	Asn	Met
			1060					1065					1070		
Leu	Glu	Gly	Asp	Pro	Thr	His	Ser	Arg	Ser	Ser	Glu	Ser	Glu	Gly	Gln
		1075				1080					1085				
Glu	Ser	Lys	Ser	Ile	Thr	Leu	Pro	Asp	Ser	Thr	Leu	Gly	Ile	Met	Ser
	1090					1095					1100				
Ser	Met	Ser	Pro	Val	Lys	Lys	Pro	Ala	Glu	Thr	Thr	Val	Gly	Thr	Leu
1105					1110					1115					1120
Leu	Asp	Lys	Asp	Thr	Thr	Thr	Val	Thr	Thr	Thr	Pro	Arg	Gln	Lys	Val
				1125				1130						1135	
Ala	Pro	Ser	Ser	Thr	Met	Ser	Thr	His	Pro	Ser	Arg	Arg	Arg	Pro	Asn
			1140					1145					1150		
Gly	Arg	Arg	Arg	Leu	Arg	Pro	Asn	Lys	Phe	Arg	His	Arg	His	Lys	Gln
	1155					1160					1165				
Thr	Pro	Pro	Thr	Thr	Phe	Ala	Pro	Ser	Glu	Thr	Phe	Ser	Thr	Gln	Pro
	1170					1175				1180					
Thr	Gln	Ala	Pro	Asp	Ile	Lys	Ile	Ser	Ser	Gln	Val	Glu	Ser	Ser	Leu
1185					1190					1195					1200
Val	Pro	Thr	Ala	Trp	Val	Asp	Asn	Thr	Val	Asn	Thr	Pro	Lys	Gln	Leu
				1205					1210					1215	
Glu	Met	Glu	Lys	Asn	Ala	Glu	Pro	Thr	Ser	Lys	Gly	Thr	Pro	Arg	Arg
			1220					1225					1230		
Lys	His	Gly	Lys	Arg	Pro	Asn	Lys	His	Arg	Tyr	Thr	Pro	Ser	Thr	Val
	1235					1240					1245				
Ser	Ser	Arg	Ala	Ser	Gly	Ser	Lys	Pro	Ser	Pro	Ser	Pro	Glu	Asn	Lys
	1250					1255				1260					
His	Arg	Asn	Ile	Val	Thr	Pro	Ser	Ser	Glu	Thr	Ile	Leu	Leu	Pro	Arg
1265					1270					1275					1280
Thr	Val	Ser	Leu	Lys	Thr	Glu	Gly	Pro	Tyr	Asp	Ser	Leu	Asp	Tyr	Met
				1285					1290					1295	
Thr	Thr	Thr	Arg	Lys	Ile	Tyr	Ser	Ser	Tyr	Pro	Lys	Val	Gln	Glu	Thr
			1300						1305				1310		
Leu	Pro	Val	Thr	Tyr	Lys	Pro	Thr	Ser	Asp	Gly	Lys	Glu	Ile	Lys	Asp
		1315					1320				1325				
Asp	Val	Ala	Thr	Asn	Val	Asp	Lys	His	Lys	Ser	Asp	Ile	Leu	Val	Thr
	1330					1335					1340				
Gly	Glu	Ser													

[illegible]

Thr	Thr	Leu	Ser	Ile	Lys	Val	Glu	Val	Ala	Ser	Ser	Gln	Ala	Glu	
				1445				1450						1455	
Thr	Thr	Thr	Leu	Asp	Gln	Asp	His	Leu	Glu	Thr	Thr	Val	Ala	Ile	Leu
			1460					1465						1470	
Leu	Ser	Glu	Thr	Arg	Pro	Gln	Asn	His	Thr	Pro	Thr	Ala	Ala	Arg	Met
			1475					1480						1485	
Lys	Glu	Pro	Ala	Ser	Ser	Ser	Pro	Ser	Thr	Ile	Leu	Met	Ser	Leu	Gly
			1490					1495						1500	
Gln	Thr	Thr	Thr	Thr	Lys	Pro	Ala	Leu	Pro	Ser	Pro	Arg	Ile	Ser	Gln
1505					1510					1515					1520
Ala	Ser	Arg	Asp	Ser	Lys	Glu	Asn	Val	Phe	Leu	Asn	Tyr	Val	Gly	Asn
				1525					1530						1535
Pro	Glu	Thr	Glu	Ala	Thr	Pro	Val	Asn	Asn	Glu	Gly	Thr	Gln	His	Met
			1540					1545						1550	
Ser	Gly	Pro	Asn	Glu	Leu	Ser	Thr	Pro	Ser	Ser	Asp	Arg	Asp	Ala	Phe
			1555					1560						1565	
Asn	Leu	Ser	Thr	Lys	Leu	Glu	Leu	Glu	Lys	Gln	Val	Phe	Gly	Ser	Arg
			1570					1575					1580		
Ser	Leu	Pro	Arg	Gly	Pro	Asp	Ser	Gln	Arg	Gln	Asp	Gly	Arg	Val	His
1585					1590					1595					1600
Ala	Ser	His	Gln	Leu	Thr	Arg	Val	Pro	Ala	Lys	Pro	Ile	Leu	Pro	Thr
				1605					1610						1615
Ala	Thr	Val	Arg	Leu	Pro	Glu	Met	Ser	Thr	Gln	Ser	Ala	Ser	Arg	Tyr
			1620					1625						1630	
Phe	Val	Thr	Ser	Gln	Ser	Pro	Arg	His	Trp	Thr	Asn	Lys	Pro	Glu	Ile
			1635					1640					1645		
Thr	Thr	Tyr	Pro	Ser	Gly	Ala	Leu	Pro	Glu	Asn	Lys	Gln	Phe	Thr	Thr
			1650				1655					1660			
Pro	Arg	Leu	Ser	Ser	Thr	Thr	Ile	Pro	Leu	Pro	Leu	His	Met	Ser	Lys
1665					1670					1675					1680
Pro	Ser	Ile	Pro	Ser	Lys	Phe	Thr	Asp	Arg	Arg	Thr	Asp	Gln	Phe	Asn
				1685					1690						1695
Gly	Tyr	Ser	Lys	Val	Phe	Gly	Asn	Asn	Asn	Ile	Pro	Glu	Ala	Arg	Asn
			1700					1705						1710	
Pro	Val	Gly	Lys	Pro	Pro	Ser	Pro	Arg	Ile	Pro	His	Tyr	Ser	Asn	Gly
			1715					1720				1725			
Arg	Leu	Pro	Phe	Phe	Thr	Asn	Lys	Thr	Leu	Ser	Phe	Pro	Gln	Leu	Gly
			1730				1735					1740			
Val	Thr	Arg	Arg	Pro	Gln	Ile	Pro	Thr	Ser	Pro	Ala	Pro	Val	Met	Arg
1745					1750					1755					1760
Glu	Arg	Lys	Val	Ile	Pro	Gly	Ser	Tyr	Asn	Arg	Ile	His	Ser	His	Ser
				1765					1770					1775	
Thr	Phe	His	Leu	Asp	Phe	Gly	Pro	Pro	Ala	Pro	Pro	Leu	Leu	His	Thr
			1780					1785							

1860	1865	1870
Phe Pro Cys Glu Ala Thr Gly Lys	Pro Lys Pro Phe Val Thr Trp Thr	
1875	1880	1885
Lys Val Ser Thr Gly Ala Leu Met Thr	Pro Asn Thr Arg Ile Gln Arg	
1890	1895	1900
Phe Glu Val Leu Lys Asn Gly Thr Leu Val	Ile Arg Lys Val Gln Val	
1905	1910	1915
Gln Asp Arg Gly Gln Tyr Met Cys Thr Ala	Ser Asn Leu His Gly Leu	1920
	1925	1930
Asp Arg Met Val Val Leu Leu Ser Val Thr	Val Gln Gln Pro Gln Ile	
	1940	1945
Leu Ala Ser His Tyr Gln Asp Val Thr Val	Tyr Leu Gly Asp Thr Ile	
	1955	1960
Ala Met Glu Cys Leu Ala Lys Gly Thr Pro	Ala Pro Gln Ile Ser Trp	
	1970	1975
Ile Phe Pro Asp Arg Arg Val Trp Gln Thr	Val Ser Pro Val Glu Ser	
1985	1990	1995
Arg Ile Thr Leu His Glu Asn Arg Thr Leu	Ser Ile Lys Glu Ala Ser	2000
	2005	2010
Phe Ser Asp Arg Gly Val Tyr Lys Cys Val	Ala Ser Asn Ala Ala Gly	
	2020	2025
Ala Asp Ser Leu Ala Ile Arg Leu His Val	Ala Ala Leu Pro Pro Val	
	2035	2040
Ile His Gln Glu Lys Leu Glu Asn Ile Ser	Leu Pro Pro Gly Leu Ser	
	2050	2055
Ile His Ile His Cys Thr Ala Lys Ala Ala	Pro Leu Pro Ser Val Arg	
2065	2070	2075
Trp Val Leu Gly Asp Gly Thr Gln Ile Arg	Pro Ser Gln Phe Leu His	2080
	2085	2090
Gly Asn Leu Phe Val Phe Pro Asn Gly Thr	Leu Tyr Ile Arg Asn Leu	
	2100	2105
Ala Pro Lys Asp Ser Gly Arg Tyr Glu Cys	Val Ala Ala Asn Leu Val	
	2115	2120
Gly Ser Ala Arg Arg Thr Val Gln Leu Asn	Val Gln Arg Ala Ala Ala	
	2130	2135
Asn Ala Arg Ile Thr Gly Thr Ser Pro Arg	Arg Thr Asp Val Arg Tyr	
2145	2150	2155
Gly Gly Thr Leu Lys Leu Asp Cys Ser Ala	Ser Gly Asp Pro Trp Pro	
	2165	2170
Arg Ile Leu Trp Arg Leu Pro Ser Lys Arg	Met Ile Asp Ala Leu Phe	
	2180	2185
Ser Phe Asp Ser Arg Ile Lys Val Phe Ala	Asn Gly Thr Leu Val Val	
	2195	2200
Lys Ser Val Thr Asp Lys Asp Ala Gly Asp	Tyr Leu Cys Val Ala Arg	
	2210	2215
Asn Lys Val Gly Asp Asp Tyr Val Val Leu	Lys Val Asp Val Val Met	
2225	2230	2235
Lys Pro Ala Lys Ile Glu His Lys Glu Glu	Asn Asp His Lys Val Phe	
	2245	2250
Tyr Gly Gly Asp Leu Lys Val Asp Cys Val	Ala Thr Gly Leu Pro Asn	
	2260	2265
Pro Glu Ile Ser Trp Ser Leu Pro Asp Gly	Ser Leu Val Asn Ser Phe	
	2275	2280
		2285

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2705					2710					2715					2720
Val	Thr	Ser	Ile	Pro	Val	Ile	Val	Ile	Ala	Tyr	Pro	Pro	Arg	Ile	Thr
					2725				2730					2735	
Ser	Glu	Pro	Thr	Pro	Val	Ile	Tyr	Thr	Arg	Pro	Gly	Asn	Thr	Val	Lys
					2740				2745				2750		
Leu	Asn	Cys	Met	Ala	Met	Gly	Ile	Pro	Lys	Ala	Asp	Ile	Thr	Trp	Glu
					2755				2760				2765		
Leu	Pro	Asp	Lys	Ser	His	Leu	Lys	Ala	Gly	Val	Gln	Ala	Arg	Leu	Tyr
					2770				2775				2780		
Gly	Asn	Arg	Phe	Leu	His	Pro	Gln	Gly	Ser	Leu	Thr	Ile	Gln	His	Ala
2785					2790				2795						2800
Thr	Gln	Arg	Asp	Ala	Gly	Phe	Tyr	Lys	Cys	Met	Ala	Lys	Asn	Ile	Leu
					2805				2810					2815	
Gly	Ser	Asp	Ser	Lys	Thr	Thr	Tyr	Ile	His	Val	Phe				
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<210> 3
<211> 27
<212> DNA
<213> Artificial Sequence
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<220>
<223> PCR primer

<400> 3
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27 '

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<211> 25
<212> DNA
<213> Artificial Sequence
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<220>
<223> PCR primer

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25

```
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<211> 26
<212> DNA
<213> Artificial Sequence
```

<220>
<223> PCR primer

```
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```

26

```
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<211> 28
<212> DNA
<213> Artificial Sequence
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<223> PCR primer

gagaggagag gaaggagaaa actgcatc

28

<211> 37

<212> DNA

<213> Artificial Sequence

<223> PCR primer

ttgcggccgc gccaccatgc ccaagcgcgc gcactgg

37

<211> 28

<212> DNA

<213> Artificial Sequence

<223> PCR primer

tcaatactcc tgctcctggt ctgtctca

28